

## REMARKS

Reconsideration of the application, as amended, is respectfully requested.

The claims have been amended to obviate the Examiner's rejection under 35 U.S.C. §112. Specifically, claim 1 has been amended to recite chemical equilibrium constant  $K_D$  to indicate clearly the the high binding affinity the main the ligand. Support for this amendment may be found at page 5, lines 5-8 of the specification.

Claim 1 has been furthermore amended to incorporate the subject matter of claim 4 and a Markush group which combines the subject matter of claims 7, 9, 11 and 13.

Claims 7, 9, 11 and 13 were not rejected under 35 U.S.C. §102 over either Shoseyov or Bettoli. Consequently, those rejections are considered to be moot.

Claims 1-14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shoseyov et al. as applied to claims 1-2, 4, 6, 14 above, Bettoli et al. as applied to claim 1-3, 6 and 12 above and further in view of Hauwermeiren et al., (WO 98/06812), Frenken et al. (WO 94/25591). Applicants respectfully traverse the rejection. At the outset, it should be noted that Bettoli appears to be irrelevant to the rejection with regard to claim 1 as amended, since Bettoli does not teach antibodies in the fusion protein (claim 4 was not rejected over Bettoli). The other primary reference (Shoseyov) does not teach the use of fusion protein comprising CBD and antibody in the detergent compositions and does not teach directing the antibody at any of the substrates recited by the amended claim 1. The secondary references (Hauwermeiren and Frenken) cited by the Examiner for the showing of the use of antibodies in detergent compositions do not remedy the shortcomings of Shoseyov: neither teaches CBD/antibody fusion proteins, with the high binding affinity domain antibody directed at a benefit agent or the

fabric or the specific part of the fabric or the micro particles loaded with a benefit agent.

Furthermore, it is not seen how one of ordinary skill in the art would have been led to combine Shoeleyov with either Hauwermeiren or Frenken, since Shoeleyov does not teach or suggest any detergent applications or any of the problems disclosed by the present application in the field of the detergent use. There must be motivation to combine the references. It is not seen how one of ordinary skill in the art, who has not had the benefit of hindsight afforded by the present application, would have been led to combine Shoeleyov with either Hauwermeiren or Frenken and, furthermore, modify the combined teaching so as to have the high binding affinity domain antibody directed at a benefit agent or the fabric or the specific part of the fabric or the micro particles loaded with a benefit agent. It is respectfully submitted that the Shoeleyov, Hauwermeiren and Frenken combination does not present the *prima facie* case of obviousness and that Bettoli is moot with regard to this rejection since claim 4 was not rejected over Bettoli. Consequently, it is respectfully requested that the obviousness rejection be reconsidered and withdrawn.

In light of the above amendments and remarks, it is respectfully requested that the application be allowed to issue.

If a telephone conversation would be of assistance in advancing the prosecution of the present application, applicants' undersigned attorney invites the Examiner to telephone at the number provided.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attachment is captioned "Version with Markings to Show Changes Made".

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

In the claims:

Claims 1 - 3, 5, 12, 14 have been amended as follows:

1. (Amended) Fusion protein comprising a cellulose binding domain and a domain having a high binding affinity for another ligand, with chemical equilibrium constant  $K_D$  for binding between the domain having the high binding activity and the ligand being lower than  $10^{-4}M$ ,

wherein the domain having a high binding affinity is an antibody or antibody fragment and,

wherein the domain having a high binding affinity is directed at one of the following: a Benefit Agent, the fabric, a specific part of the fabric, and micro-particles which are loaded with a benefit agent.

2. (Amended) Fusion protein according to claim 1, wherein the cellulose binding domain is obtainable obtained from a fungal enzyme origin such as *Humicola*, *Trichoderma*, *Thermomonospora*, *Phanerochaete*, *Aspergillus* or from a bacterial enzyme origin such as *Bacillus*, *Clostridium*, *Streptomyces*, *Cellulomonas* and *Pseudomonas*.

3. (Amended) Fusion protein according to claim 1, wherein the cellulose binding domain is obtainable obtained from *Trichoderma reesei*.

5. (Amended) Fusion protein according to claim 1, wherein the domain having a high binding affinity antibody is a Heavy Chain antibody as found in Camelidae.

12. (Amended) Fusion protein according to claim 1, wherein the cellulose binding domain is connected to the domain having a high binding affinity for another ligand by means of a linker consisting of 2-15, ~~preferably 2-5~~ amino acids.

14. (Amended) Fusion protein according to claim 1, ~~whereby the domain having a high binding affinity wherein antibody or the antibody fragment is a multi-specific antibody or antibody fragment or an analogous structure~~, whereby at least one specificity is directed to the fabric and the others are directed to one or more benefit agents.

Claims 4, 6, 7, 9, 11 and 13 have been cancelled.

New claims 17 have been added.